

BookletChart™

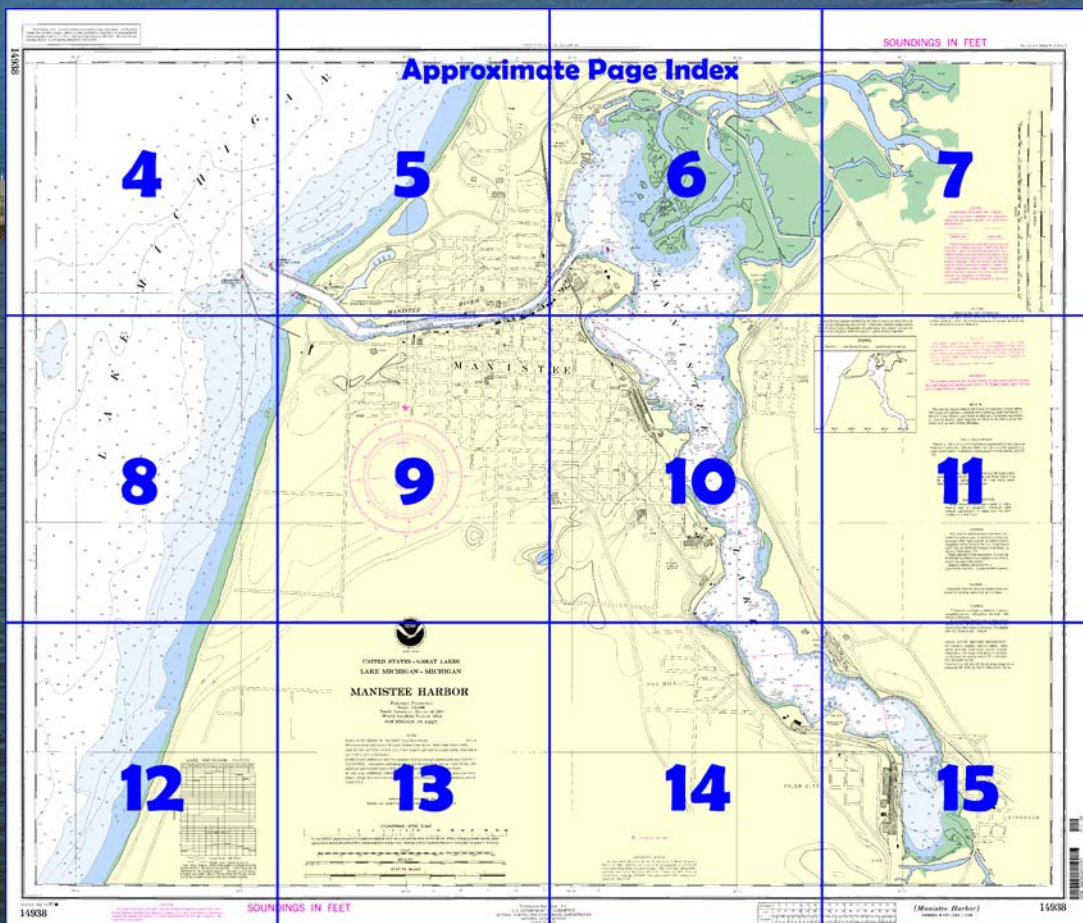
Manistee Harbor NOAA Chart 14938



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™ ?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14938>



(Selected Excerpts from Coast Pilot).

Manistee Harbor, 31 miles S of Point Betsie, is on the **Manistee River**, which flows from the N end of Manistee Lake for 1.5 miles to Lake Michigan. There are extensive facilities along both sides of the river and on the W side of Manistee Lake. The principal cargo handled is coal, with occasional shipments of salt and machinery. The harbor is also a base for fish tugs. A radio mast at the N end of Manistee Lake is prominent.

Manistee North Pierhead Light (44°15.1'N., 86°20.8'W.), 55 feet above the water, is shown from a white cylindrical tower on the outer end of the N pier; a fog signal is at the light.

Manistee Lake, about 4 miles long and up to 0.5 mile wide, has depths to 50 feet, with the shores generally deep-to. Buoys mark the outer ends of shoals and submerged dock ruins from the inner end of Manistee River S in the lake. Good anchorage is in the N part of the lake in depths of 20 to 25 feet.

Big Manistee River entering Manistee Lake at its N end, flows through a flat valley with numerous cutoffs and sloughs, and is crossed by a number of fixed bridges. The channel is tortuous, with depths varying from 1½ to 11 feet to a dam which crosses the river about 30 miles above the mouth.

Manistee Coast Guard Station, seasonally operated, is on the N side of the entrance to Manistee Harbor.

Harbor regulations have been established by the city of Manistee and are enforced by the **harbormaster**. Copies of regulations may be obtained from the Chief of Police at City Hall. A **slow-no wake speed** is enforced in the Manistee River. Federal regulations specify an 8 mph **speed limit** for vessels over 40 feet in length.

A public dock constructed by the Michigan State Waterways Commission is on the S side of the Manistee River just inside the mouth. There are private marinas on the N side of the river 0.7 mile above the mouth and at the N end of Manistee Lake. Transient berths, gasoline, diesel fuel, water, electricity, sewage pump-out, and harbormaster services are available. The harbormaster monitors VHF-FM channels 16 and 9. The marina at the N end of Manistee Lake has a 20-ton marine railway for hull and engine repairs.

Currents in the river attain velocities up to 3 mph in either direction. Numerous submerged pile clusters extend along the N channel limit from the outer end of the N pier to its inner end. Large pile clusters protect each end of the revetment upstream of the N pier.

The outer basin, enclosed by the S breakwater and N pier, is not adapted for anchorage, but reduces wave action in the inner harbor. Mooring to the breakwater, piers, or revetments is prohibited. Large riprap stones are along both sides and across the ends of the breakwater and pier, and navigation should not be attempted close to these structures.

Channels.—The entrance to Manistee River is protected on the southwest by a breakwater. A dredged entrance channel leads from deep water in Lake Michigan through the north part of the outer harbor basin to the river entrance between two piers and through the river channel to Manistee Lake. (See Notice to Mariners and the latest edition of the chart for controlling depths.)

Currents in the river attain velocities up to 3 mph in either direction. Numerous submerged pile clusters extend along the north channel limit from the outer end of the north pier to its inner end. Large pile clusters protect each end of the revetment upstream of the north pier.

The outer basin, enclosed by the south breakwater and north pier, is not adapted for anchorage, but reduces wave action in the inner harbor. Mooring to the breakwater, piers, or revetments is prohibited. Large riprap stones are along both sides and across the ends of the breakwater and pier, and navigation should not be attempted close to these structures.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Cleveland

Commander
9th CG District
Cleveland, OH

(216) 902-6117

Table of Selected Chart Notes

Pump-out facilities

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.009" northward and 0.311" westward to agree with this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) ◐ (Approximate location)

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Traverse City, MI	KIH-22	162.40 MHz
Hesperia, MI	WWF-36	162.47 MHz

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

Polyconic Projection
Scale 1:10,000
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Detroit, Michigan.

Refer to charted regulation section numbers.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

CAUTION

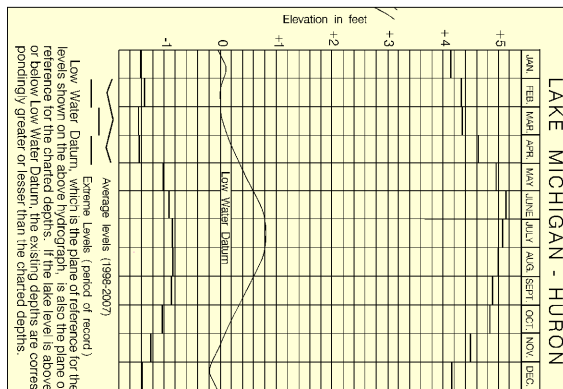
Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

SOURCE DIAGRAM

Most of the hydrography identified by the letter "I" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....577.5ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

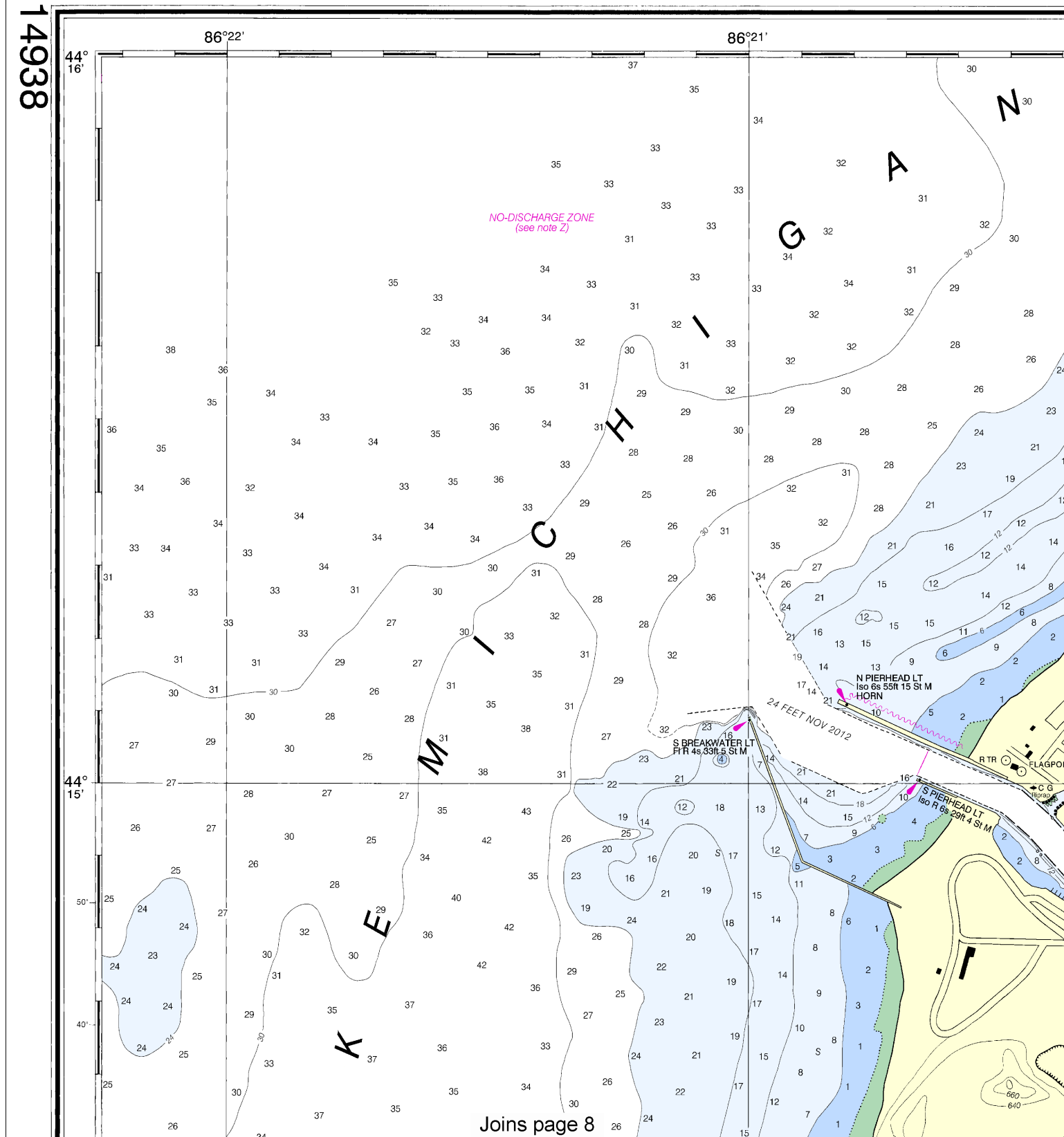
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

14938



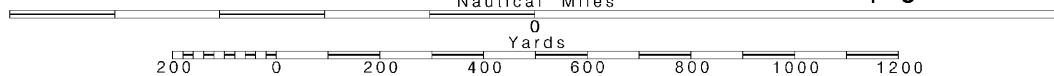
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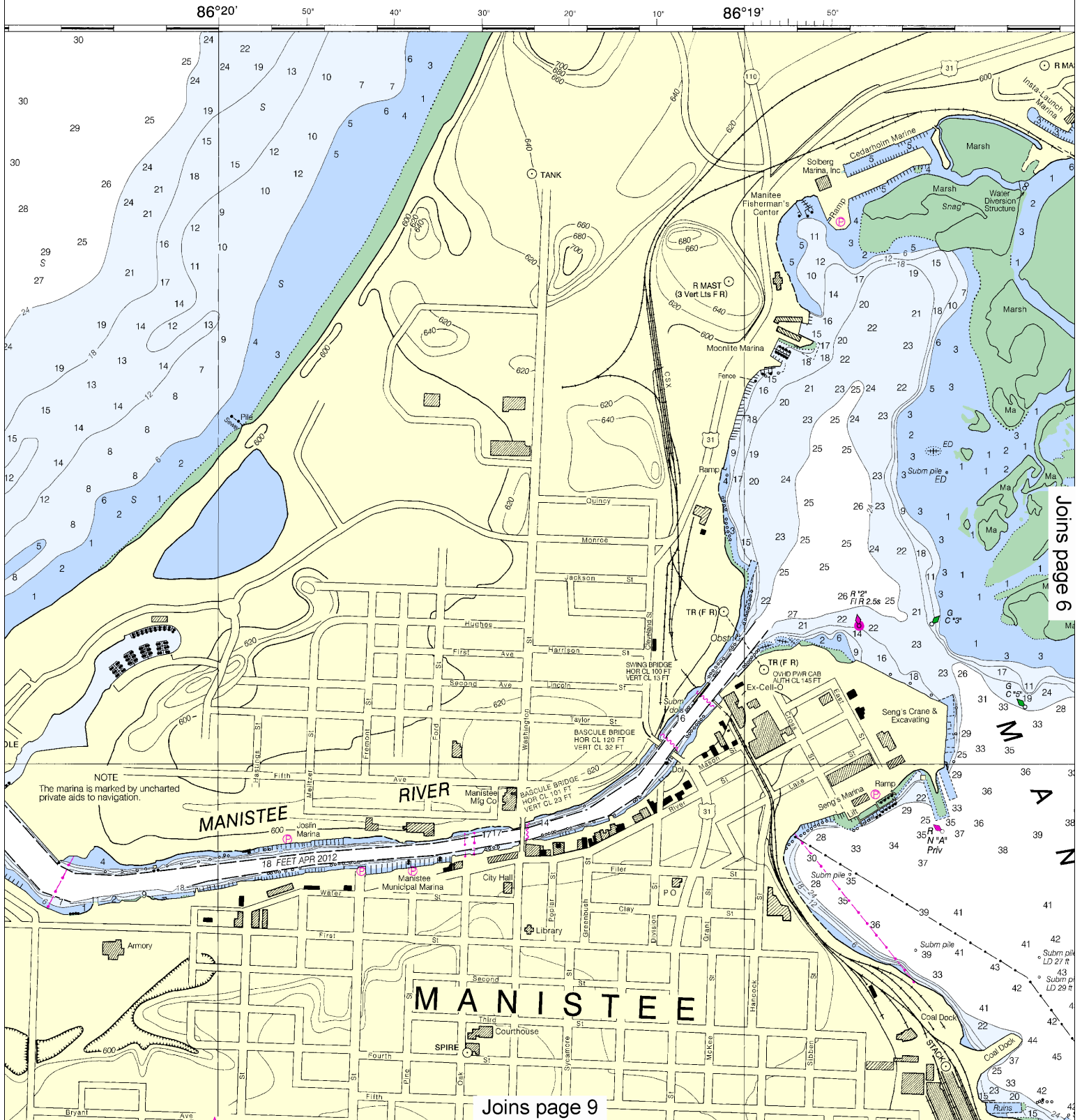
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Printed at reduced scale.

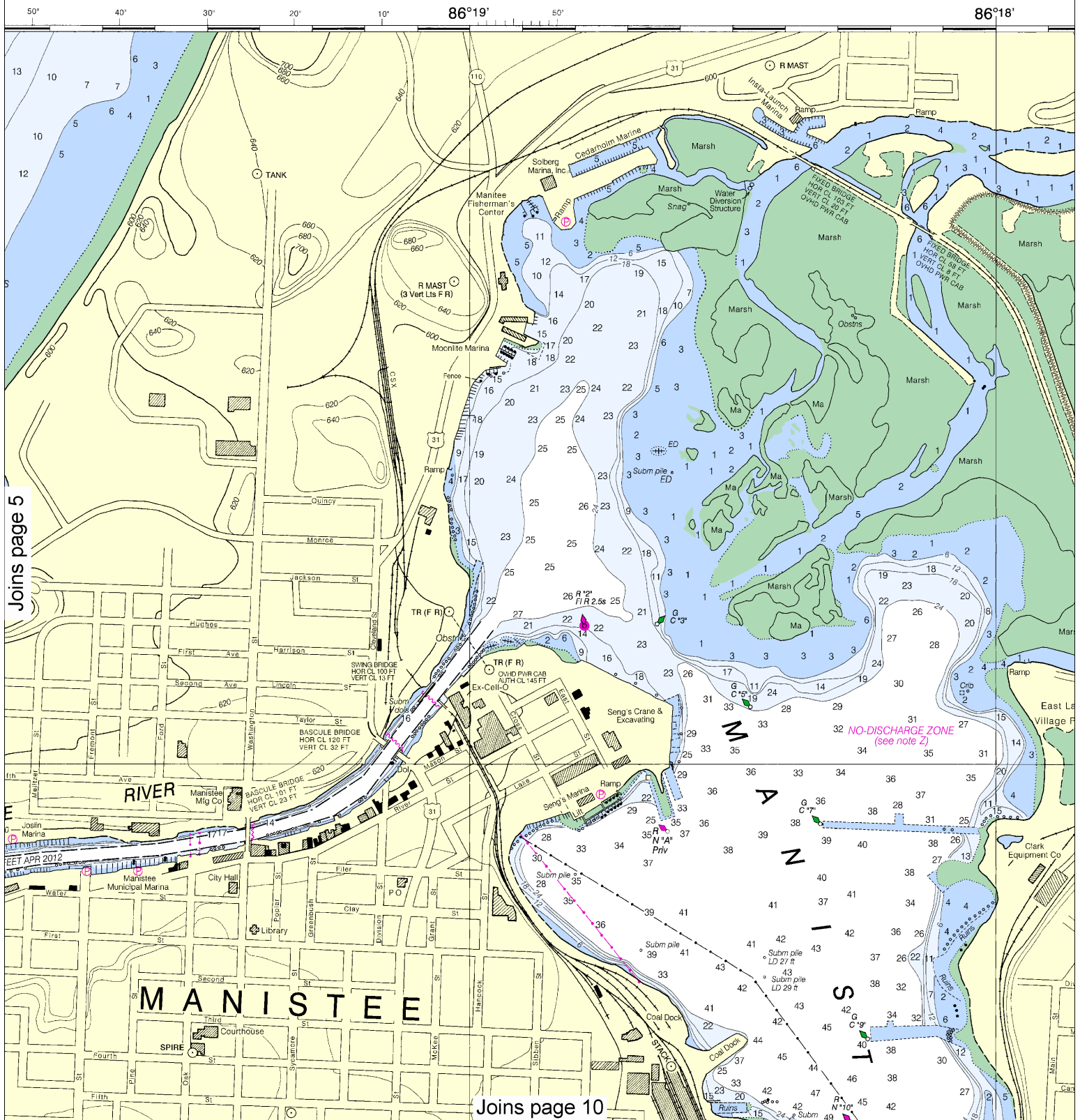
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See Note on page 5.

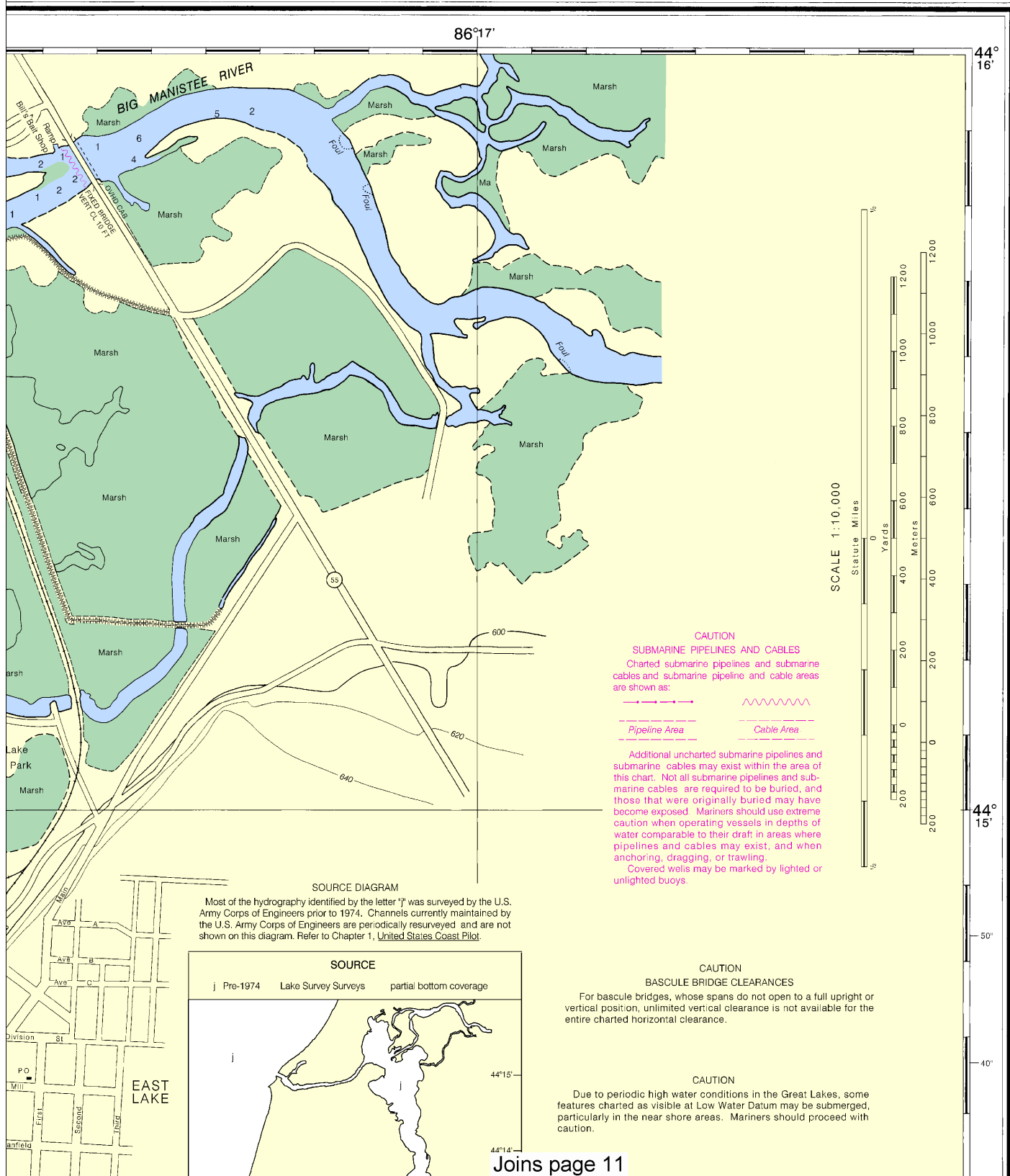


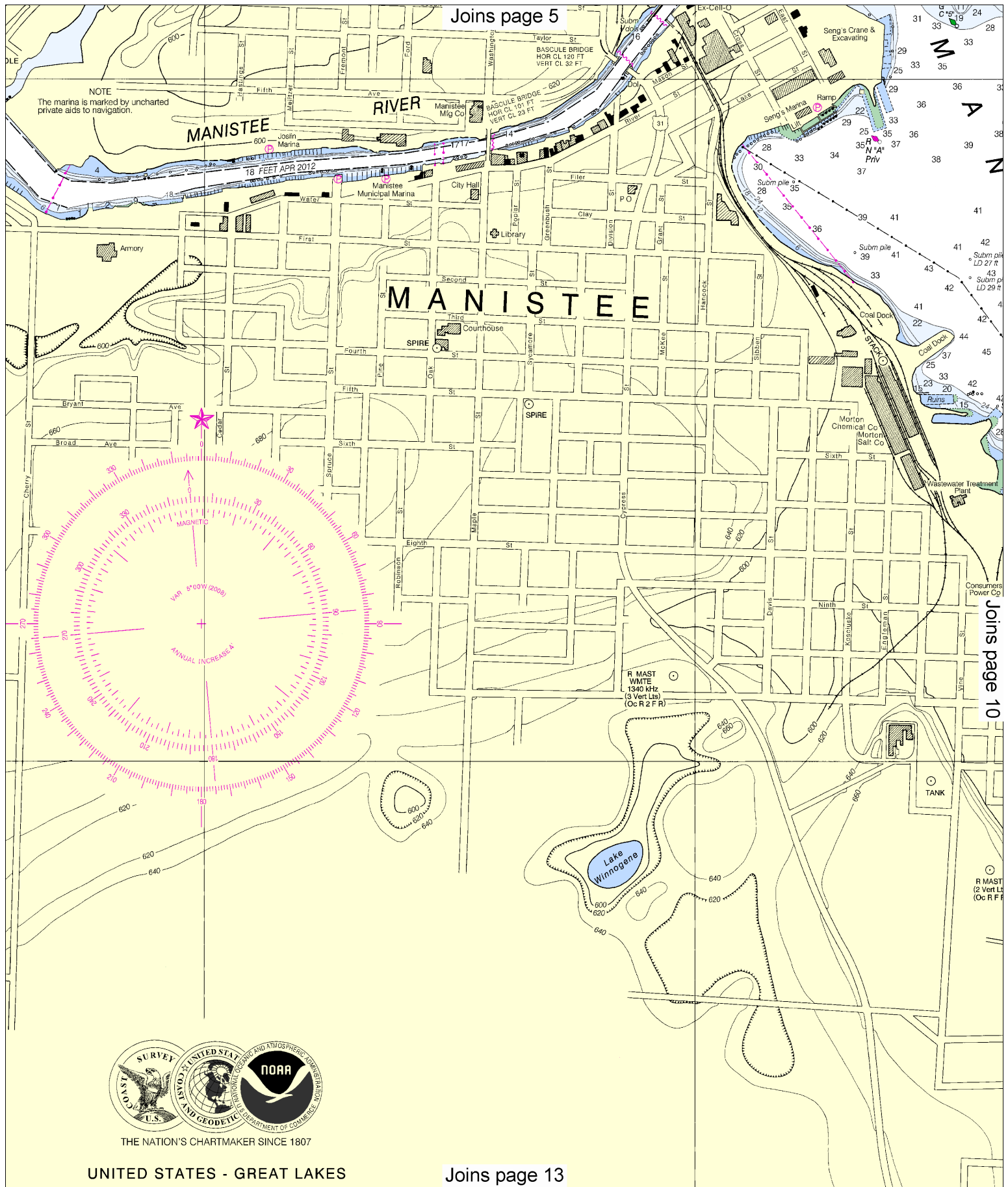


This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:13333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



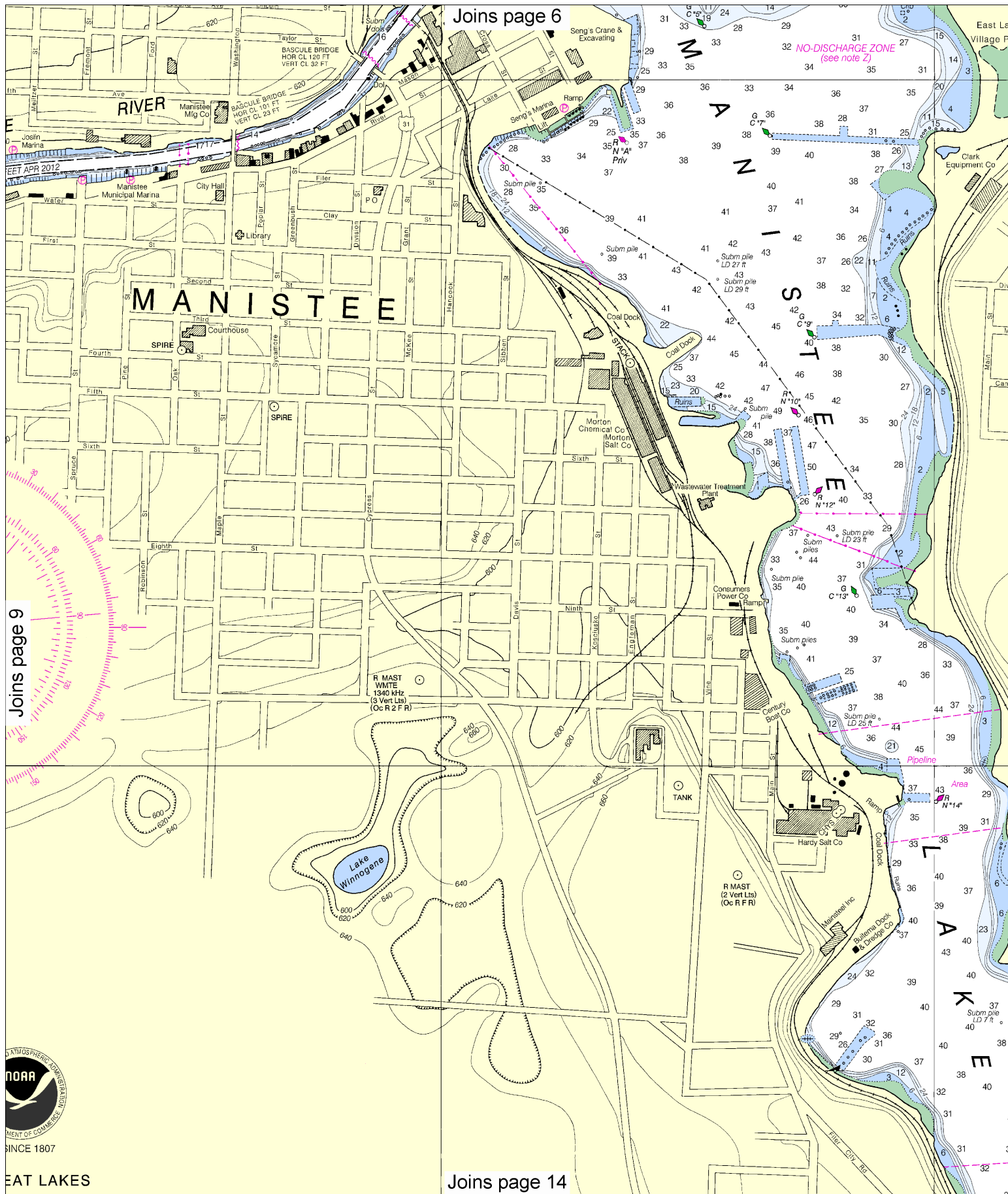
SOUNDINGS IN FEET





THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - GREAT LAKES



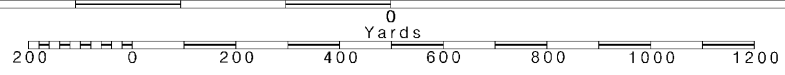
EAT LAKES

10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. — SCALE 1:10,000 —
Nautical Miles

See Note on page 5.



Covered wells may be marked by lighted or unlighted buoys.

Most of the hydrography identified by the letter "J" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

BASCULE BRIDGE CLEARANCES

CAUTION

WARNING

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Refer to charted regulation section numbers

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Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

⊙ (Accurate location) ○ (Approximate location)

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

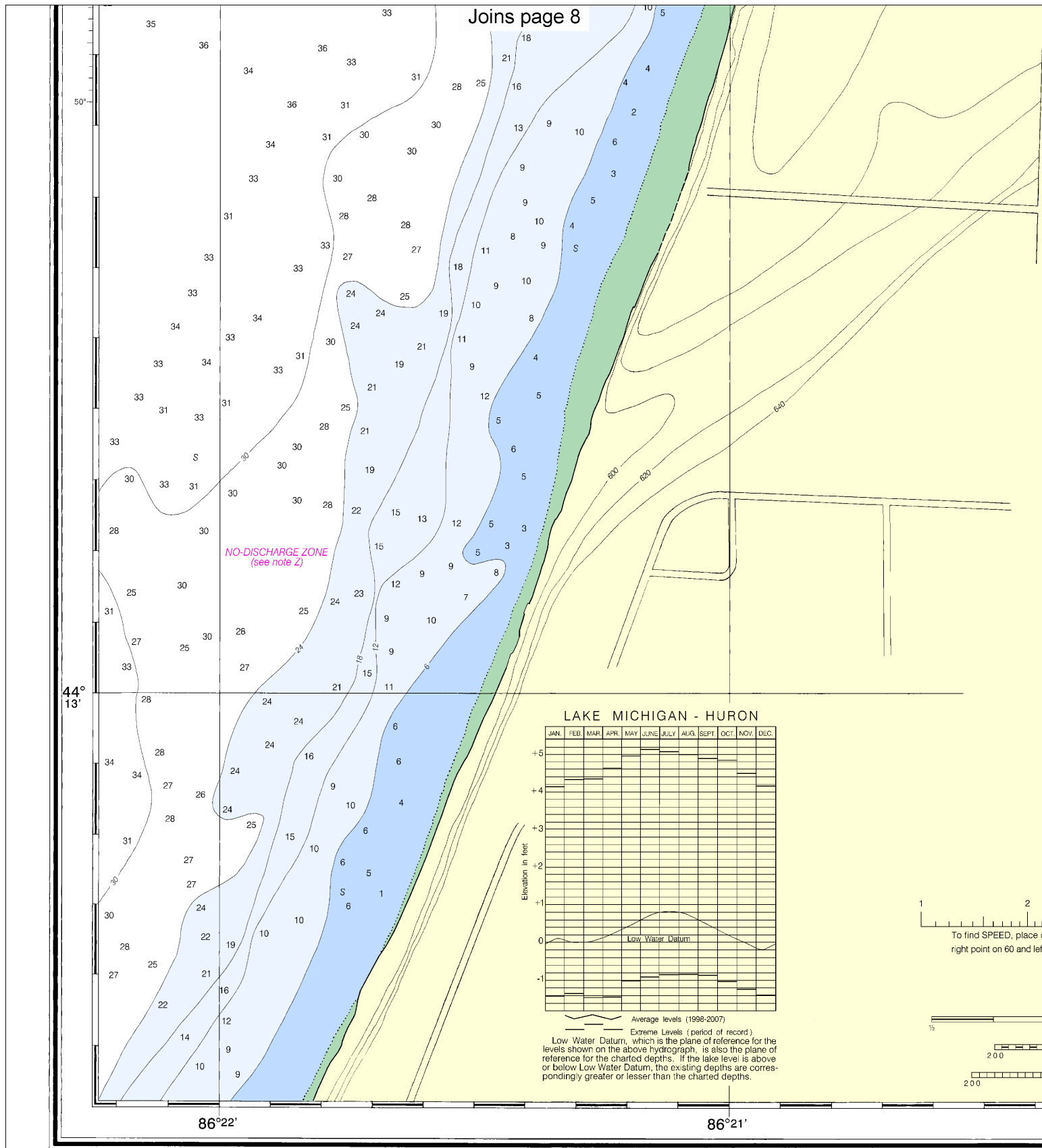
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NOAA WEATHER RADIO BROADCASTS

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Joins page 15



24th Ed., Jul/08
14938
 ■ Corrected through NM Jul. 05/08
 Corrected through LNM Jul. 01/08

CAUTION
 This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

SOUNDINGS IN FEET

12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:10,000
Nautical Miles

See Note on page 5.





UNITED STATES - GREAT LAKES
LAKE MICHIGAN - MICHIGAN

MANISTEE HARBOR

Polyconic Projection
Scale 1:10,000
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET

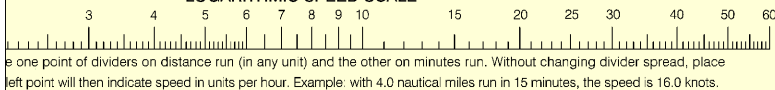
NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum).....577.5ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).
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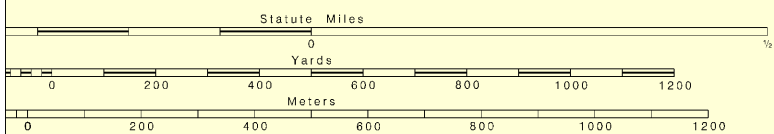
Additional information can be obtained at nauticalcharts.noaa.gov.

SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 6 for important supplemental information.

LOGARITHMIC SPEED SCALE



SCALE 1:10,000



86°20'

50'

40'

30'

20'

10'

86°19'

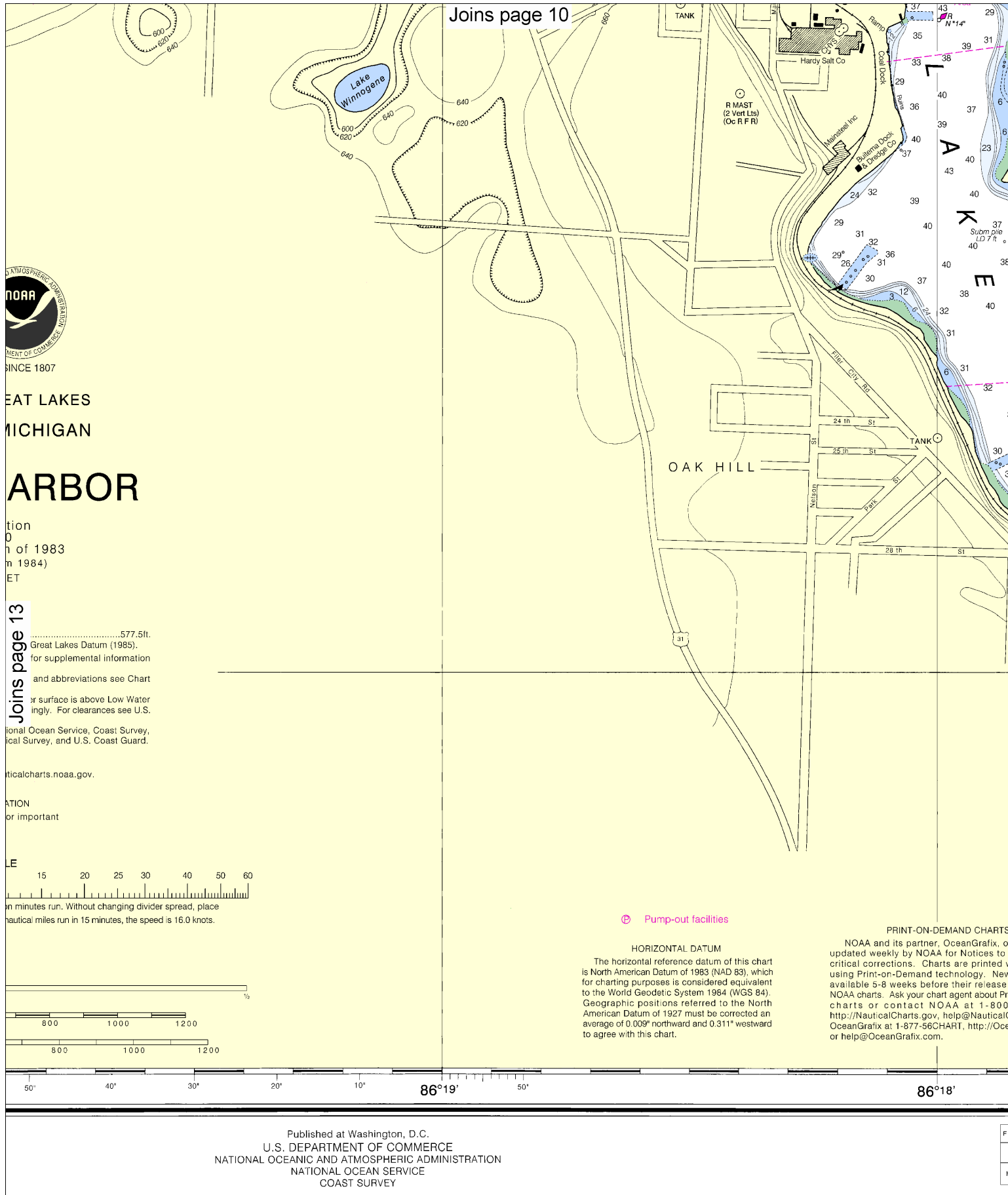
50'

⊕ Pump-out facilities

HORIZONTAL DATUM

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Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



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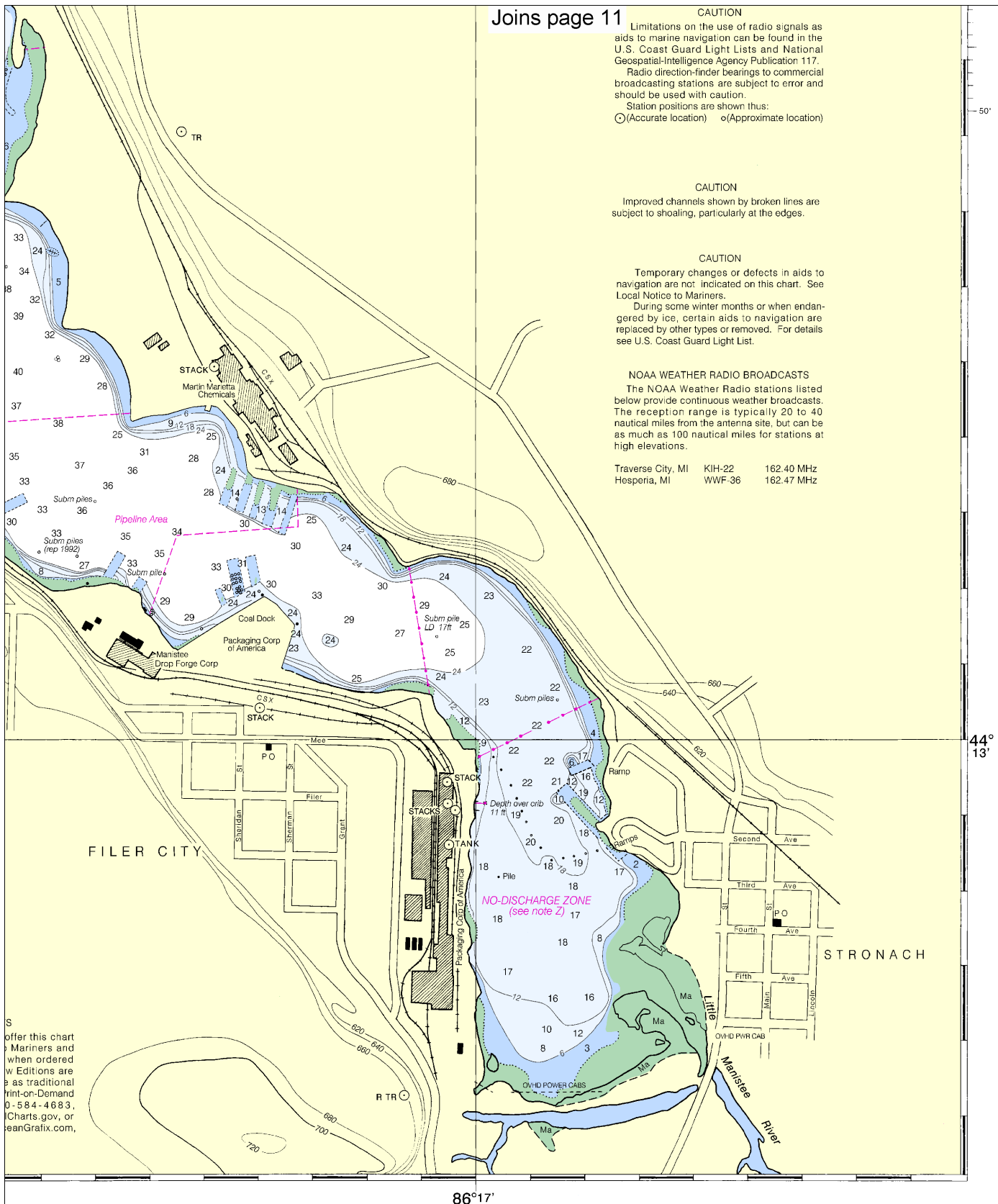
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Traverse City, MI KIH-22 162.40 MHz
 Hesperia, MI WWF-36 162.47 MHz



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 eanGrafix.com,

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Manistee Harbor
 SOUNDINGS IN FEET - SCALE 1:10,000

14938



ED. NO. 24



NSN 7642014010702
 NGA REFERENCE NO: 14XHA14938



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Online chart viewer	—	http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker